

ANNUAL REPORT OF THE CONSERVATION COMMITTEE

Rapid expansion of the human population and increasing emphasis on economic growth make it essential that bird conservation problems be kept under constant surveillance and anticipated in advance where possible. Expansion of urban areas, highway construction, and intensive agricultural, industrial, and recreational development are bringing about a modification of the habitat of birds. A sustained effort to appraise the effect of this "new frontier" on bird life and to temper undesirable changes whenever feasible is highly desirable. The ornithologist must show increased aggressiveness if bird conservation is to have meaning in the future. He must assign more research effort to the objective of obtaining increased knowledge of, and solutions to, bird conservation problems, and he must take a greater part in insuring education of the general public and in securing needed legislation.

Using an earlier committee report (Scott, 1958) as a guide, we might examine the bird-conservation problem from a "what to do about it" point of view. The major points of concern separate into the following categories: (1) conservation education, (2) land-use problems, (3) habitat pollution (pesticides, oil, etc.), and (4) control of bird populations. More often than not, the names of birds are added to lists of endangered species and subspecies as a consequence of limitations which may be classified in one or more of the above categories. Vanishing species and subspecies, however, will be discussed in a separate section of this report.

One objective of the conservation committee is to explore and report upon special problems. Two of these reports, one in the area of a land-use problem (Jahn, 1961) and the other on the status of grouse populations (Hamerstrom, 1961), have been presented. We are anticipating additional reports from Charles H. Callison (conservation education), Joseph J. Hickey (pesticides), and Harold Mayfield (Kirtland's Warbler refuge).

The status of research dealing with problems of bird conservation is a cause of concern to the committee. Evidence indicates that there is some apathy among scientists about devoting research time to the solution of problems relating to bird conservation. Additional stimulus may be needed. Although funds for research are available from many sources, funds for use in attacking problems in bird conservation are frequently inadequate. This is a matter which requires thorough appraisal. Perhaps the committee can arrange for an enlightening review.

CONSERVATION EDUCATION

Man tends to be apathetic toward conservation of the apparently unessential natural elements of his environment. Perhaps this is eternally true, and perhaps it is partly a reflection of adaptation to his changing universe. Over the past 200 years the average man in this country has been losing contact with his natural world. It is conceivable that this change from virtual dependence on the wild elements of his environment to an environment of concrete, stainless steel, and supermarkets has had a profound effect on human appreciation of nature. Reduced contact with nature surely lessens appreciation for it and increases apathy which, in turn, keeps even those who are potentially conservation minded from acting, until, in some instances, there is nothing left to appreciate.

The common denominator in all conservation problems is conservation education. The warm feeling which most Americans have for birds must be encouraged; it seems apparent that this can be done most effectively through organized programs of conservation education. In this way intelligent support for bird conservation can be insured.

Many of the notable advances in the conservation of natural resources probably had their initial origin in the classroom. Our grade schools and high schools have made a contri-

bution to the enjoyment and understanding of natural history by the American public, but it is unfortunate that most such training is given indoors. Acquisition of small natural areas to be used as outdoor laboratories by secondary schools has been recommended by some educators as an aid in developing nature appreciation.

A number of organizations not directly connected with public school systems have contributed much to outdoor education. As one example, the Forest Preserve District of Cook County, Illinois, for many years has conducted a program aimed at teaching sound attitudes toward the out-of-doors to children and adults of the Chicago metropolitan region (McCabe, 1952). The more than 45,000 acres of the Forest Preserve are within easy reach of the people of that region. More than 80 per cent of the area can be called "wild" land in that it is kept as nearly as possible as natural woodland and is accessible only by foot trails or bridle paths. Competent naturalists conduct classes from the public schools, or from the Forest Preserve's day-camps in summer, on field trips to woodlands, marshes, or lagoons, where the fundamentals of botany, forestry, and aquatic and terrestrial zoology are explained in understandable terms. Naturalists also give talks in school classrooms on natural history and conservation, and co-operate with teachers colleges in giving instruction to teacher candidates in outdoor education. Both adults and children are reached through radio programs and by weekly nature bulletins sent to 135 newspapers, including the city dailies and about 50 foreign language newspapers, in the Chicago area. This program has been successful beyond expectation in improving outdoor manners and in arousing interest in natural history.

The recent establishment of the Natural Science for Youth Foundation, whose purpose is to stimulate, guide, and assist local communities in the development of natural science centers for children and youth, and also the recent merger of Nature Centers for Young America, Inc., with the National Audubon Society appear to be important steps forward in the field of conservation education. According to Carl W. Buchheister (*Aud. Leader's Cons. Guide*, 2(5), 1 March 1961), President of the National Audubon Society: "... it is our purpose to operate the Nature Centers program as one of the major educational extension arms of the Society. It will be coordinated closely with the Society's other educational activities. The staff of NCYA is made up of able, dedicated people.

"With the stimulus and the support that can be given the program by NAS branches and affiliates throughout the nation, we shall look forward to a steady growth in the Nature Center movement. No other device or program appears to hold so much promise of giving millions of urban children an understanding of their affinity with nature, and of their dependence upon the natural resources of America."

The Nature Conservancy plans to embark soon on a "Natural Areas for Schools" program. A preliminary exchange of information between the Audubon Society and the Nature Conservancy indicates that the programs of these two agencies need not compete or overlap. The two organizations will work together to assure coordination. The Nature Conservancy's efforts will be directed toward the acquisition or dedication of areas of land that can be used by schools as outdoor laboratories for natural science classes. The nature centers promoted by the National Audubon Society or by the Natural Science for Youth Foundation will in most instances be larger, with a staff and associated nature museum facilities, and they are intended to serve all the schools and youth groups in an urban community, and, to the degree that they can be accommodated, adult groups as well.

LAND-USE PROBLEMS

The increasing demand for space in which to live and work and the growing demand for the things which can be produced on the land are affecting the bird fauna through

altered habitat. Some avian populations may have been favored, and some, such as the prairie chicken in Illinois and Wisconsin, are in danger of regional extirpation. Refuges or modification in land-use practices may be required in specific instances to protect birds. Ornithologists should make every effort to keep informed on species endangered by habitat alteration and to encourage corrective action wherever needed.

Ornithologists and sportsmen have been slow to realize that often they can work effectively together toward important conservation goals, especially where the problem is related to land use. Of the two groups, perhaps the bird people have been the less willing to look for a common ground of interest. The National Audubon Society, however, seems to be taking the initiative in promoting cooperation among different groups of outdoorsmen. Recently, the president of the National Audubon Society took to task both the duck hunters and bird watchers for not protesting vigorously the threatened drainage of Tule Lake National Wildlife Refuge (Buchheister, 1960).

It was encouraging to learn that a memorandum pledging support of conservation programs on military installations was approved during the past year in the Defense and Interior Departments. According to a report by Poole (1960:2), the "agreement stipulates that 'All military installations or facilities which contain suitable land and water areas as determined after consultation with authorized federal or State conservation authorities, shall have an active, progressive program for the management and conservation of fish and wildlife resources consistent with the missions of the installations.'" It is highly probable that this program will be oriented around game animals. It would seem desirable that ornithologists near military reservations make an effort to obtain recognition of nongame bird needs.

In the majority of states in the north-central region, it seems possible to preserve for the future some of the remnant colonies of Greater Prairie Chickens only by establishing a checkerboard pattern of 20-acre or 40-acre refuges in agricultural lands. Such refuges must be kept permanently in grass for nesting cover. This is a major undertaking requiring acquisition and management of considerable acreages of land. In states where the prairie chicken is no longer classed as a game bird, conservation departments have been reluctant to purchase land for refuges except where game species still subject to hunting will also benefit. In Illinois, as in Wisconsin, several conservation agencies are co-operating in attempts to raise funds for a system of prairie chicken refuges in upland farming areas. The Illinois Prairie Chicken Foundation (parent organizations: Illinois Federation of Sportsmen's Clubs, Illinois branches of the National Audubon Society, Izaak Walton League, and Nature Conservancy) has undertaken the task of raising funds by private subscription to purchase refuge land that costs up to \$200 an acre, and is exploring other sources of possible financial assistance.

In Wisconsin, where a similar program was initiated in 1954 by the Wisconsin Conservation League and the Wisconsin Society for Ornithology, land acquisition is now proceeding at a steady pace under the auspices of the Prairie Chicken Foundation. These organizations, as well as three private citizens, have now acquired over 1,800 acres at a cost in excess of \$40,000; and the scattered blocks of land are leased to the Wisconsin Conservation Department which is managing them intensively.

The Lesser Sandhill Crane has thrived and perhaps increased in numbers during the past decade on relatively undisturbed breeding grounds in Alaska and northern Canada. However, agricultural encroachments upon feeding and concentration areas in Saskatchewan, the Dakotas, and Nebraska, and upon wintering areas in Texas and New Mexico, spell trouble for the species. Pressure for hunting as a means of relieving depletions resulted last year in an "experimental open season" declared by the Secretary

of the Interior for certain areas in Texas and New Mexico, a season that Texas couldn't take advantage of because of a state law against crane hunting. In several respects the "experimental season" was unsatisfactory; there was little hunting pressure and the number of birds taken was probably too small a sample to reveal anything definitive about age composition. The experience did reveal a number of questions that need to be answered through research before a management program can be devised for the species. We need to know, for example, the extent to which the birds winter in Mexico, or move into and out of Mexico during the wintering season, and the amount of hunting pressure, if any, sustained in Mexico.

A field investigation in 1960 by the National Audubon Society and the Audubon Society of Canada of the crop-depredations problem in Canada, the Dakotas, and the Southwest, plus observations of the experimental hunting season, has led the two societies to conclude, quite aside from the question of hunting, that the only certain answer to the depredations problem, and a step essential to the future protection of the species, is the acquisition of additional refuge lands for the Sandhill Crane in Saskatchewan, along the flyway, and in the Southwest. Otherwise, the progressive encroachment of farming with attendant demands for "control" will certainly endanger the species.

It seems obvious that cranes, with their low rate of reproduction and restricted habitat, can never sustain more than a small hunting harvest at best. Further, it would seem unwise to permit hunting in areas where the range of the Lesser Sandhill Crane overlaps that of the Greater Sandhill Crane, an endangered form. It would be unthinkable in areas where the Whooping Crane would be endangered. Following the experimental season of last winter, there are already pressures for crane hunting seasons in other western states and in Alaska.

It is gratifying to note that in some instances industrial concerns have shown recognition of conservation needs, especially with respect to the provision of refuge sites. The American Cyanamid Company recently announced the lease of 1,000 acres of land as a wading-bird sanctuary to the Florida Audubon Society. The new refuge has been named the Saddle Creek Bird Sanctuary and will be posted with signs reading, "Florida Audubon Society, American Cyanamid Company Cooperating." This project is especially encouraging because of the marked decline in populations of Common Egrets and Wood Ibises over the past 10 years.

Of major importance in wildlife conservation nationally was the signing on 7 December 1960, by outgoing Secretary of the Interior Fred A. Seaton, of land withdrawal orders establishing three new National Wildlife Ranges in Alaska with a total area of more than 11 million acres. The Arctic National Wildlife Range of approximately 9 million acres in northeast Alaska contains nesting ground for approximately a hundred species of birds, and provides range for grizzly and polar bears, Dall sheep, wolverine, caribou, and other wildlife. The Kuskokwim National Wildlife Range, 1.8 million acres in western Alaska, is one of the most important breeding grounds for migratory birds in North America. The Izembek National Wildlife Refuge, approximately 400,000 acres near the western end of Alaska, is a vital concentration area for migratory waterfowl where large amounts of aquatic food are available. (*Natl. Aud. Soc. News and Views and Leader's Cons. Guide*, 15 December 1960).

The Alaska Conservation Society, in its News Bulletin of January 1961, states editorially that the action establishing the Arctic National Wildlife Range by the former Secretary of the Interior received high praise from Alaskan sportsmen and conservation groups who had long advocated this reserve in northeast Alaska. The action was bitterly condemned, however, by Alaska's Senators Edward L. Bartlett and Ernest H.

Gruening, Representative Ralph J. Rivers, and Governor William A. Egan. Belief was expressed that the new Secretary of the Interior, Stewart L. Udall, would be under strong pressure to rescind the proclamation (*Alaska Cons. Soc. News Bull.* 2(1):3-4, 1961).

Wilderness bills were introduced both in the House and Senate at the beginning of the 87th Congress. Senator Clinton P. Anderson of New Mexico introduced what he described as a "streamlined version of a bill to establish a National Wilderness Preservation system." This bill, S. 174, was referred to the Senate Committee on Interior and Insular Affairs of which Senator Anderson is chairman. The bill was first introduced five years ago. The Senate Committee on Interior and Insular Affairs gave it extensive consideration in hearings, and revisions are said to have met objections of most groups. Senator Anderson stated: "After four years of such constructive revision and in response to an increasing public support and a deep sense of urgency in our realization that we must act promptly or run the risk of losing much of our opportunity, it seems to me we should now proceed to act" (*Nat. Res. Council of Am., Legislative News Service*, Rept. No. 1:7, 13 January 1961).

Amendment of the Migratory Bird Hunting Stamp Act to require all receipts except those for reimbursement to the Post Office to be expended for the lease and acquisition of nesting and refuge areas is beginning to result in acquisition of land. Another step was made in the uphill fight to save waterfowl habitat from encroachment by agriculture when 14,641 acres of Klamath Marsh, Oregon, were purchased by the Department of the Interior. All of the purchase price of \$476,401 came from the Migratory Bird Hunting Stamp Act money (*Nat. Res. Council of Am., Executive News Service* 3(9):76, 1960). Progress with acquisition, however, is limited by funds. Doubt was expressed in an earlier report of the Conservation Committee that the amendment of the Stamp Act would provide the necessary acceleration (Scott, 1958:388). Thus it is most encouraging to learn that \$150 million for acquisition of waterfowl wetlands is being sought in bills (H.R. 4603 and H.R. 4624) introduced by Congressmen John D. Dingell (Mich.) and Henry S. Reuss (Wis.). The bills would make up to \$20 million available annually over a period of 10 years. It should be remembered, however, that unless authority is granted to spend some of the funds in Canada, the bill will not aid in the preservation of the breeding areas that produce most of the ducks in North America.

A gratifying awareness of the serious contradictions in policies of federal agencies and of the need for prompt action to save duck nesting habitat is evident in the excerpt quoted herewith from President John F. Kennedy's conservation program outlined in his message to Congress of 23 February 1961: "I am also hopeful that consistent and coordinated Federal leadership can expand our fish and wildlife opportunities without the present conflicts of agencies and interests: One department paying to have wetlands drained for agricultural purposes while another is purchasing such lands for wildlife or waterfowl refuges—one agency encouraging chemical pesticides that may harm the songbirds and game birds whose preservation is encouraged by another agency—conflicts between private landowners and sportsmen—uncertain responsibility for the watershed and anti-pollution programs that are vital to our fish and wildlife opportunities.

"I am directing the Secretary of the Interior to take the lead, with other Federal and State officials, to end these conflicts and develop a long-range wildlife conservation program—and to accelerate the acquisition of upper Midwest wetlands through the sale of Federal duck stamps" (*Nat. Res. Council of Am., Legislative News Service*, Rept. No. 8:95, 2 March 1961).

HABITAT POLLUTION

The application of extremely toxic pesticides, the accidental dumping of oil into aquatic habitats, the silting of water areas with eroded soil, and general pollution of waterways with industrial and residential wastes present an extremely sensitive problem that must be controlled in some reasonable fashion. Here again, the ornithologist can protect his interests only by aggressively engaging in research on these pollution problems, being alert to conditions in his region, and encouraging needed action.

The 86th Congress voted the usual \$2.4 million for the fire-ant spraying program during the fiscal year of 1961; however, the Senate Appropriations Committee, in approving the appropriation, tied on the following string: "The Committee directs that no funds provided herein are to be used to carry out the fire-ant eradication program in any state which does not provide its share of the financing" (*Natl. Aud. Soc., News and Views and Leader's Cons. Guide* 1(4), 1960).

Because large losses of wildlife have been proved beyond doubt to result from similar applications of poison, the conclusions of the National Audubon Society in regard to actions that must be taken to meet the pesticides problem seem sound. They are quoted from the *Natl. Aud. Soc. News and Views and Leader's Cons. Guide* of 1 November 1960:

"1. Research must be stepped up sharply. Research to show what new chemicals will and will not do, in the short run and in the long run, before they are placed on the market or fogged onto the land in government spraying operations. Research also to discover selective chemicals to replace the present broad-spectrum poisons now in common use, and to discover alternative, and safe, biological and cultural controls for economic pests.

"2. New laws are needed to regulate the distribution and sale of chemical pesticides, to regulate their use by public agencies such as the U.S. Department of Agriculture's plant pest control division, and to license and regulate persons engaged in commercial or contract spraying operations.

"3. Educational efforts can alert the public to the dangers involved in the unwise application of poisons that have not been fully studied, and in the excessive or careless use of tested poisons."

Another quotation, from Dr. Samuel A. Graham (1960), Emeritus Professor of Economic Entomology, University of Michigan, deserves careful consideration:

"... the use of insecticides is a necessity for production of foods in the quantity and quality we require. However, numerous widespread projects involving the broadcasting of insecticides that have been endorsed enthusiastically by the public-supported control agencies, are open to question. Apparently the decision to spray or not to spray cannot be safely left to these control agencies. The temptations of empire building are too great. The pros and cons should be weighed by persons with broad training and experience, who can evaluate all available information dispassionately, thus reaching a decision that will be in the best long-term interest of mankind and as nearly unbiased as possible. The viewpoint of forest entomologists on the broadcasting of insecticides deserves special comment because it is the sensible one. It is this: All agree that the application of insecticides over large areas must be regarded as emergency treatment, comparable to extinguishing a fire or removing a man's appendix. Control projects involving the broadcasting of insecticides should not be entered upon lightly."

The National Academy of Sciences-National Research Council designated a committee to investigate problems associated with the chemical control of agricultural pests. A news release from the National Academy of Sciences-National Research Council, dated for release 15 June 1960, stated that the work of the committee would endeavor to:

"1. provide technical advice and guidance to bring about maximum control of crop pests with minimum damage to wildlife,

"2. provide critical evaluation of both the direct and indirect effects of various pest control operations on plants and animals,

"3. stimulate new research where gaps exist, and encourage investigations in progress to obtain factual information as a basis for sound guiding principles and policy determinations, and

"4. foster cooperation among various agencies, organizations, industries, and individuals interested in pest control and those concerned with its effects on fish and wildlife."

The scientists designated to serve on the committee were obviously highly qualified in their fields, but their fields of experience are so closely allied to the problem that some question may be raised as to whether some might not have provided greater service as witnesses than as judges. It is to be hoped that their work will not reflect the potential biases indicated by their backgrounds.

In these times when international good will is so important, the long delay attending ratification of the oil pollution control treaty, officially known as the *International Convention for Prevention of the Pollution of the Sea by Oil*, by the United States has been beyond comprehension. This treaty was drafted seven years ago with U. S. State Department representatives participating. The United States, with about 15 per cent of the world's tanker tonnage, has been the major holdout. The Constitution requires a two-thirds favorable vote of the Senate for approval of international treaties of this kind. Although the Committee on Foreign Relations voted favorably on the treaty on 2 June 1960, the Senate stalled off a vote on this important treaty. On 3 January 1961, the treaty was re-referred to the Committee on Foreign Relations which again voted favorably on it. Finally, on 16 May 1961, the treaty was approved by the Senate. It is our understanding, however, that the treaty will not be formally ratified by the United States internationally until the President and Department of State have obtained legislation to implement it. It is reported that implementing legislation is now under consideration.

CONTROL OF BIRD POPULATIONS

This problem promises to become increasingly important. Concern for bird control reaches spectacular proportions in localities where birds have caused planes to crash. Wherever bird depredations on crops occur there are demands for control measures, and the degree of urgency of such control relates directly to the importance of the crop loss and to the need for increasing food production for livestock and humans. Also, diseases and parasites of livestock and man which find feral hosts among birds stimulate attempts to control birds. The frightening epidemic resulting in 21 human deaths from Eastern Encephalitis in New Jersey in the late summer and fall of 1959 is a case in point, because wild birds were implicated as reservoir hosts. Of the ornithologist's responsibility here, Stamm (1960:5-6) wrote: "Ornithologists must take a much more active role in relating available knowledge to the problems and in developing new approaches. The areas which, at the moment, seem most needful of clarification are (1) the precise trends in bird population density in affected areas during the epidemic season, and (2) the influence of human alteration of habitat on population density. Ornithologists have a special stake in these activities for several reasons. Their knowledge of the host species is essential to solving the EE disease problem. Knowledge gained in studies of this disease will also be applicable to other diseases affecting birds only. Most important, ornithologists must be aware of the details of and basis for possible bird population reduction as a means of epidemic control. Only by direct participation in the basic

work can they be assured that harm to bird populations will not result either from overt activity of this sort or potentially even more severe damage as a result of uncritical massive application of chemicals for 'mosquito control.'"

Reports of damage by blackbirds to crops seem to have increased with the spread of the Starling westward. Starlings readily flock with Red-winged Blackbirds, Cowbirds, and other blackbirds, sometimes forming huge roosts. Instances of aerial application of parathion to kill birds in roosts are cited by Dykstra (1960), who states that this matter is of serious concern to the Bureau of Sport Fisheries and Wildlife, partly because of the hazard to humans.

ENDANGERED SPECIES AND SUBSPECIES

At least nine birds native to North America, neighboring islands of the Atlantic Ocean, and American possessions in the Pacific were mentioned during the 1949 meeting of the International Union for the Protection of Nature as on the verge of extermination. Of the seven of these birds on which we have some recent data or opinions, the Eskimo Curlew may be extinct; and the Ivory-billed Woodpecker was down to 12 known birds in Oriente Province, Cuba, by July 1956 (Lamb, 1957a). Three others are holding their own, although in low numbers (California Condor, Whooping Crane, and Bermuda Petrel). Two others have staged comebacks (Hawaiian Goose and Laysan Mallard), although the singularly insular condition of the Laysan Mallards continues to render them vulnerable to local catastrophes. Conservation programs are also playing a part in the survival of the California Condor, Whooping Crane, and Bermuda Petrel. There have been no recent reports of the Marianas Mallard or the Marianas Megapode.

There is good reason to feel that management measures must now be taken to preserve such interesting subspecies as the Hawaiian Stilt, whose breeding grounds are being steadily eliminated, and the Hawaiian Duck (or Koloa) if they are to be preserved at all.

It is urgent that action be taken to provide an effective program for the conservation of birdlife in the Virgin Islands, especially the nesting colonies of 17 kinds of sea birds on local cays (leased by the government to private individuals) where the eggs and young birds are reported to be exploited commercially (Lamb, 1957b). By 1957, White-crowned Pigeons had been reduced by excessive hunting and reduction of habitat to a single colony of 300 on St. Croix Island. The United States has shown scant and ineffective interest in the protection of birdlife in the Virgin Islands. On 15 May 1961, the Legislative Assembly of the Virgin Islands passed Bill No. 1395, making legal the "removal or possession of eggs of the birds commonly known as 'Boobies.'" This means the eggs of such birds as Sooty Terns, Bridled Terns, Laughing Gulls, Boobies, and similar species.

In Texas, the Attwater's Prairie Chicken is estimated to number no more than 3,000 individuals, and no management plan has been worked out for their preservation since Lehmann's pioneer study in 1941 (Towell, 1958).

In Florida, the Everglade Kite is about to be extirpated as a native of the United States. In the southeastern states, the Bachman's Warbler appears to be a dying species, and in Sonora, overgrazing is steadily leading to the disappearance of the Masked Bobwhite (Ligon, 1952; Leopold, 1959). This bobwhite apparently has been extirpated in Arizona. The forthcoming attempt by the Arizona-Sonora Desert Museum to stock an area near Tucson with pen-reared Masked Bobwhites will be of much interest. On the Edwards Plateau, where goats now compete for forage with sheep, steers, and deer, a careful census or estimate of the population of the Golden-cheeked Warbler is urgently needed. And our

TABLE 1
AMERICAN RESEARCH PRIORITIES ON RARE AND VANISHING BIRDS

Status	Species	Subspecies
Critical but holding own	Bermuda Petrel	Hawaiian Duck
	Whooping Crane*	Laysan Mallard
	Hawaiian Goose*	
	California Condor*	
	Cape Sable Sparrow*	
Probably in danger	Bachman's Warbler	Hawaiian Stilt
	Kirtland's Warbler*	Attwater's Prairie Chicken
	Puaiohi (Small Kauai Thrush)	Masked Bobwhite
	Ooaa (Kauai Oo)	
	Kauai Akiola	
Population trend unknown	Golden-cheeked Warbler	
	Nukupuu	
	Maui Parrotbill	
	Noguchi's Woodpecker	

* Birds subjected to adequate ecological study in the last decade.

military occupation of Okinawa should not mean that we assume no responsibility for the preservation of Noguchi's Woodpecker.

In general, an important responsibility for ornithologists in the 1960's is to carry out good ecological studies of at least the species and subspecies listed in Table 1 in order to establish population trends, ascertain limiting factors, and provide sound recommendations for conservation programs.

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